



# Highlights of Alaska's Hospital Discharge Data, 2001-2003

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# Background

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Alaska State Hospital and Nursing Home Association (ASHNHA) and the Alaska Department of Health & Social Services have a *Memorandum of Understanding* governing sharing of hospital discharge data, starting 2001, providing for data security and confidentiality, and assuring use for public health purposes

Fourth MOU just signed - to cover the 2004 data

2004 Data should be completed, edited, transmitted to DHSS before June 2005 (goal is to have completion closer to end of calendar year)



# Who is participating?

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## Participating:

- 17 hospitals providing acute care
  - Five Critical Access Hospitals
  - Four acute care hospitals in Anchorage
  - Ketchikan and Petersburg began participation with 2003 data, Kodiak began with 2002 data
  - Washington State data on Alaskans is purchased

## Not yet participating - hereby invited!

- 6 small Alaska Native Tribal hospitals
- API, Bassett Army Hospital



# Coverage of the Data Set

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- In 2001, coverage was about 83% of acute discharges --- estimated total 52,300
  - 9% of discharges for acute care were from small Tribally managed hospitals
  - 5% of discharges in 3 hospitals not yet participating
  - Bassett Army Hospital (estimated) 2%
- In 2003, with the 5% added, coverage was about 88%



# Discharges Other Than Acute Med/Surg

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- Five hospitals have reported psych unit discharges
- Four reported medical rehab discharges
- One reported "other inpatient" in 2001 but not in subsequent years (needs checking)
- WA discharges (Alaskans) include some psych and some medical rehab each year
- For most analysis we limit data to the acute medical/surgical units



# Non-Newborn Discharges in Data Set by Year, by service type

place	2001	2002	2003
acute med/surg	42,889	44,252	44,651
psych unit	1,981	1,712	939
medical rehab	593	478	451
other in- patient	482	2	1
Total	45,945	46,444	46,042

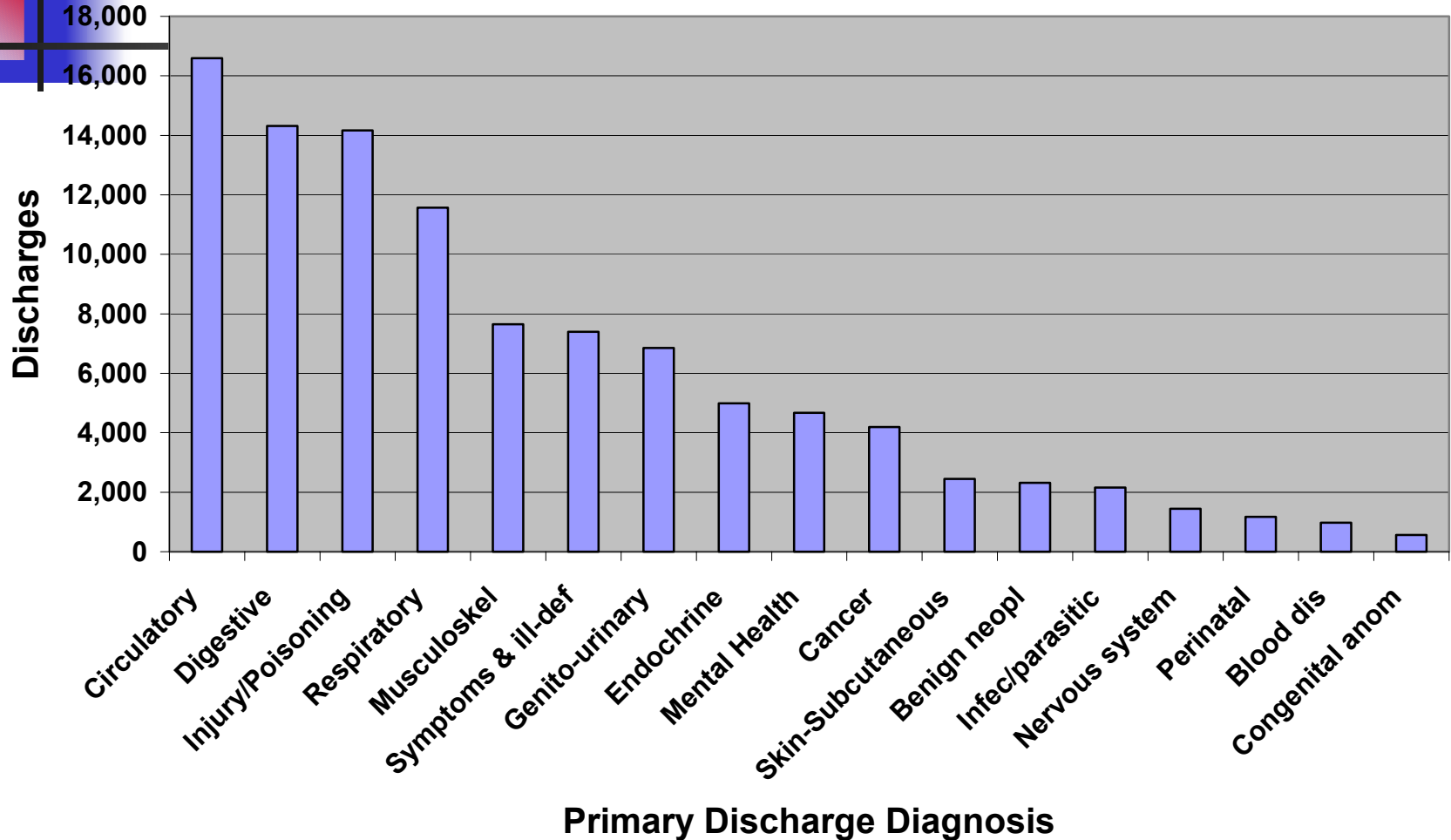


# What are some of the findings?

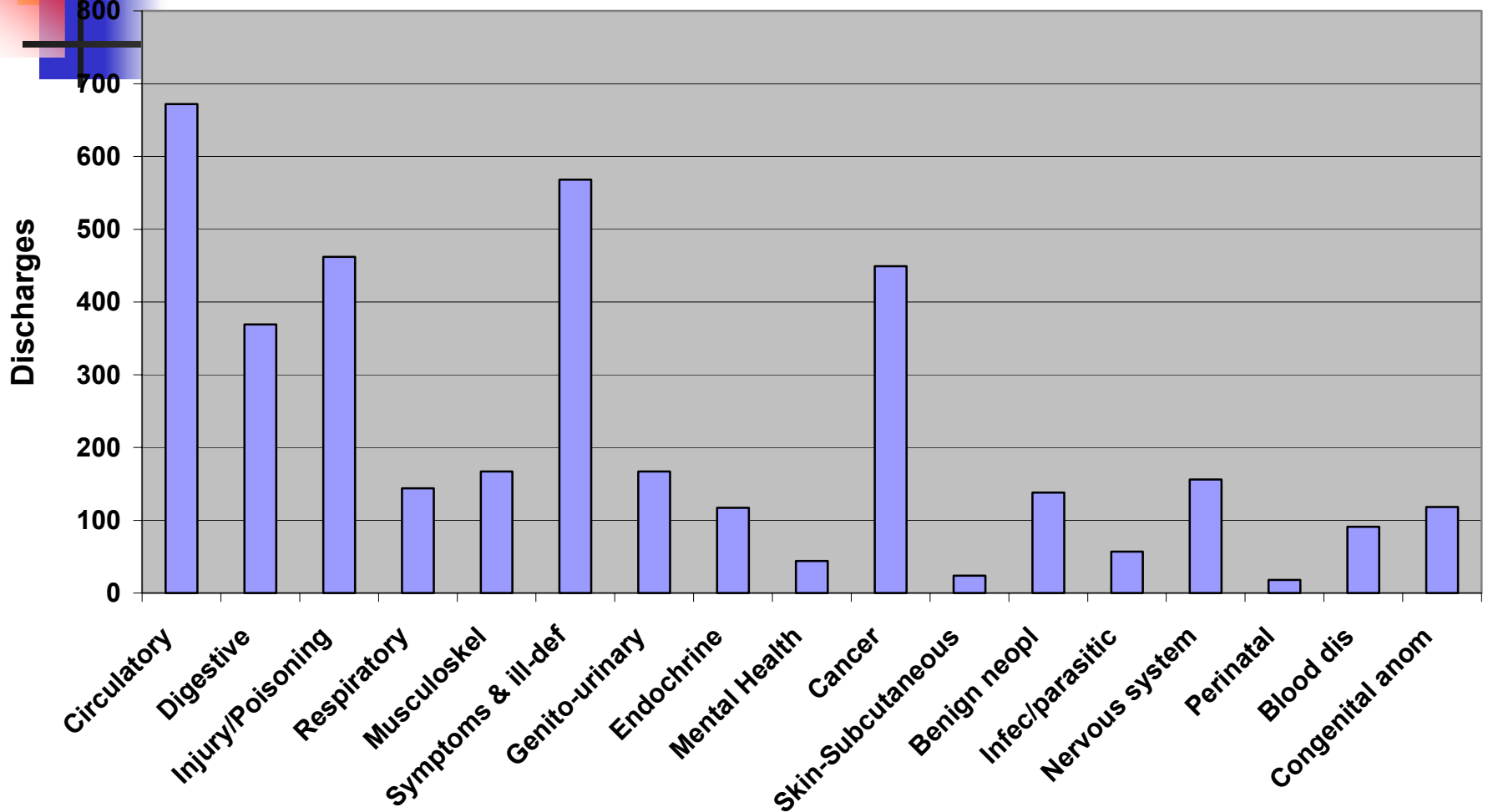
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- Length of stay
- Charges
- Pay sources
- Leading Causes
- Patient Characteristics
  - Race
  - Ethnicity
  - Age

## Primary Diagnosis Group (Alaska Hospital Discharges) 2001-2003, excluding pregnancy/delivery & V-codes

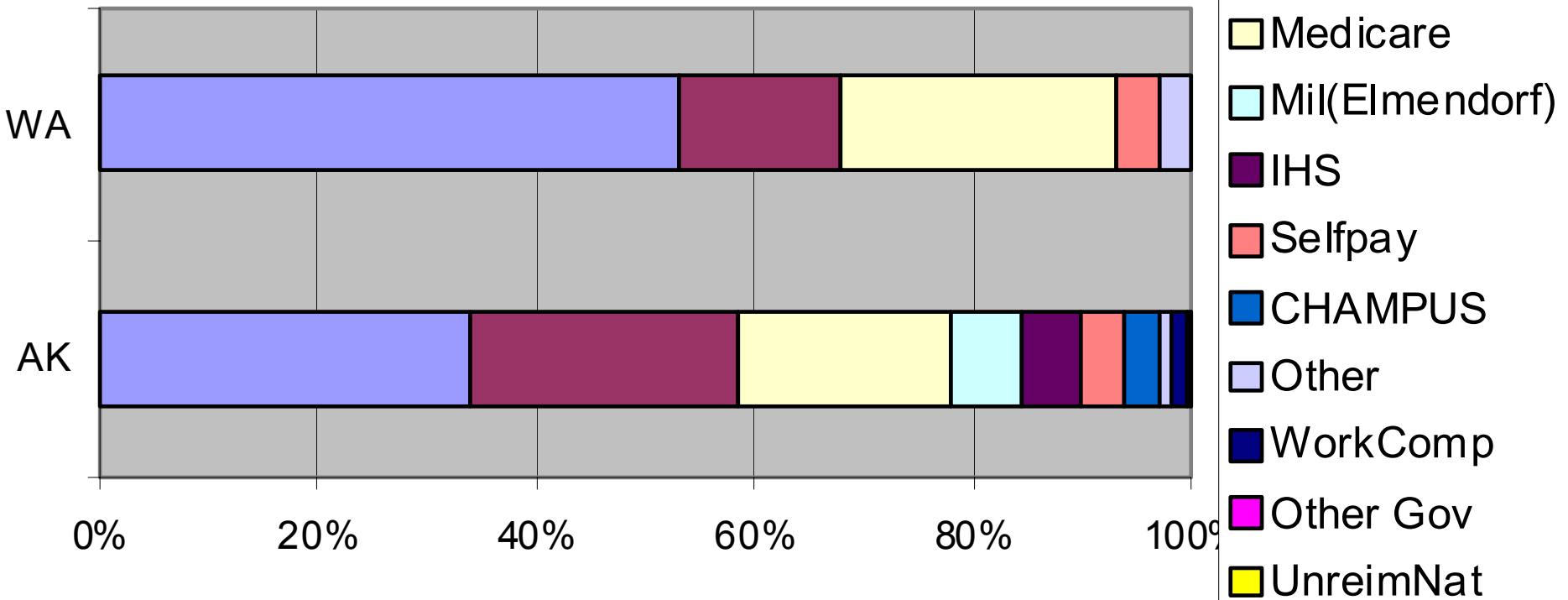


# Primary Diagnosis for Washington State Discharges of Alaskans 2001-2003 (same order as AK Hospital Chart)

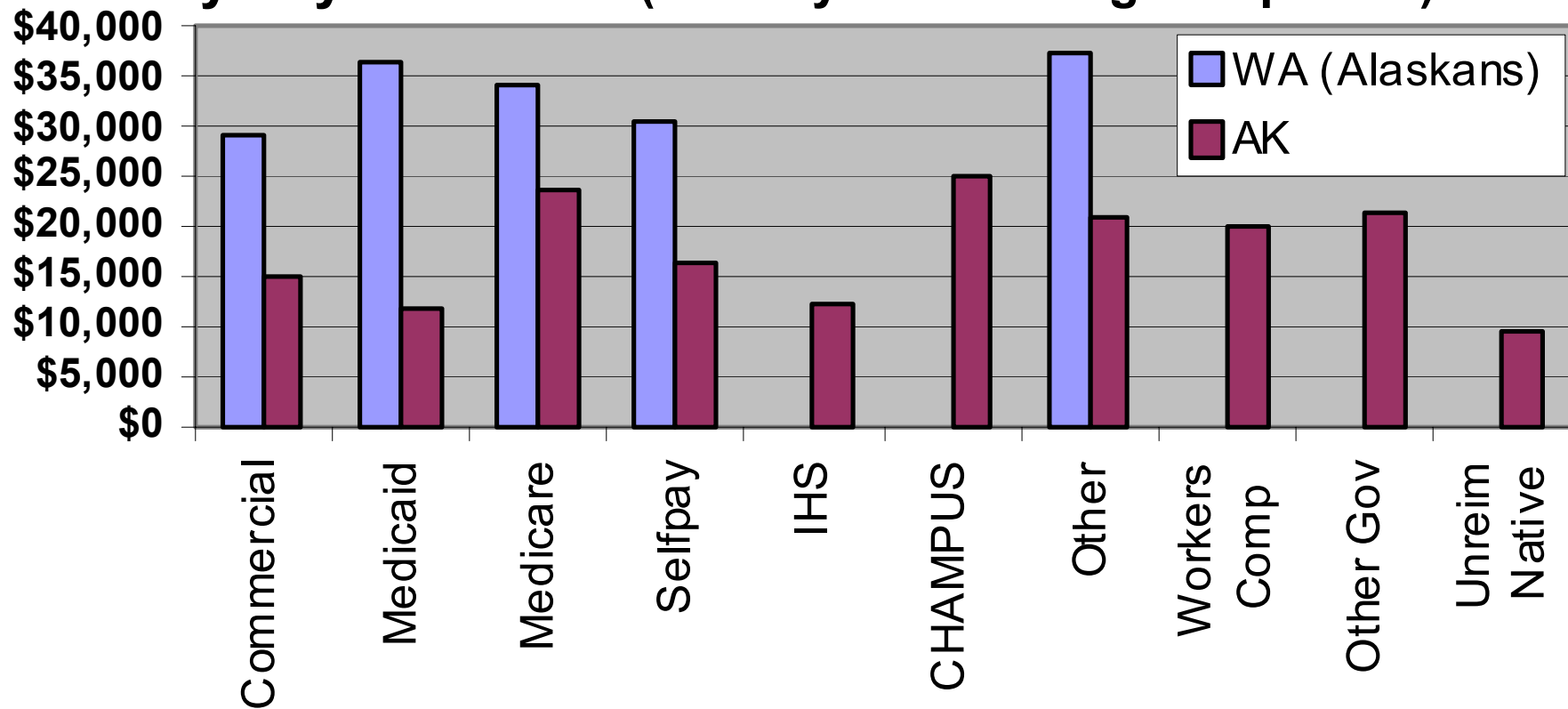


# Preliminary Look at Discharges by Primary Pay Source, AK & WA Hospitals\* (\*Alaskans)

**Discharges Percent by Paysource #1**



## Average Charges per Discharge by Pay Source #1 (for stays with charges reported)



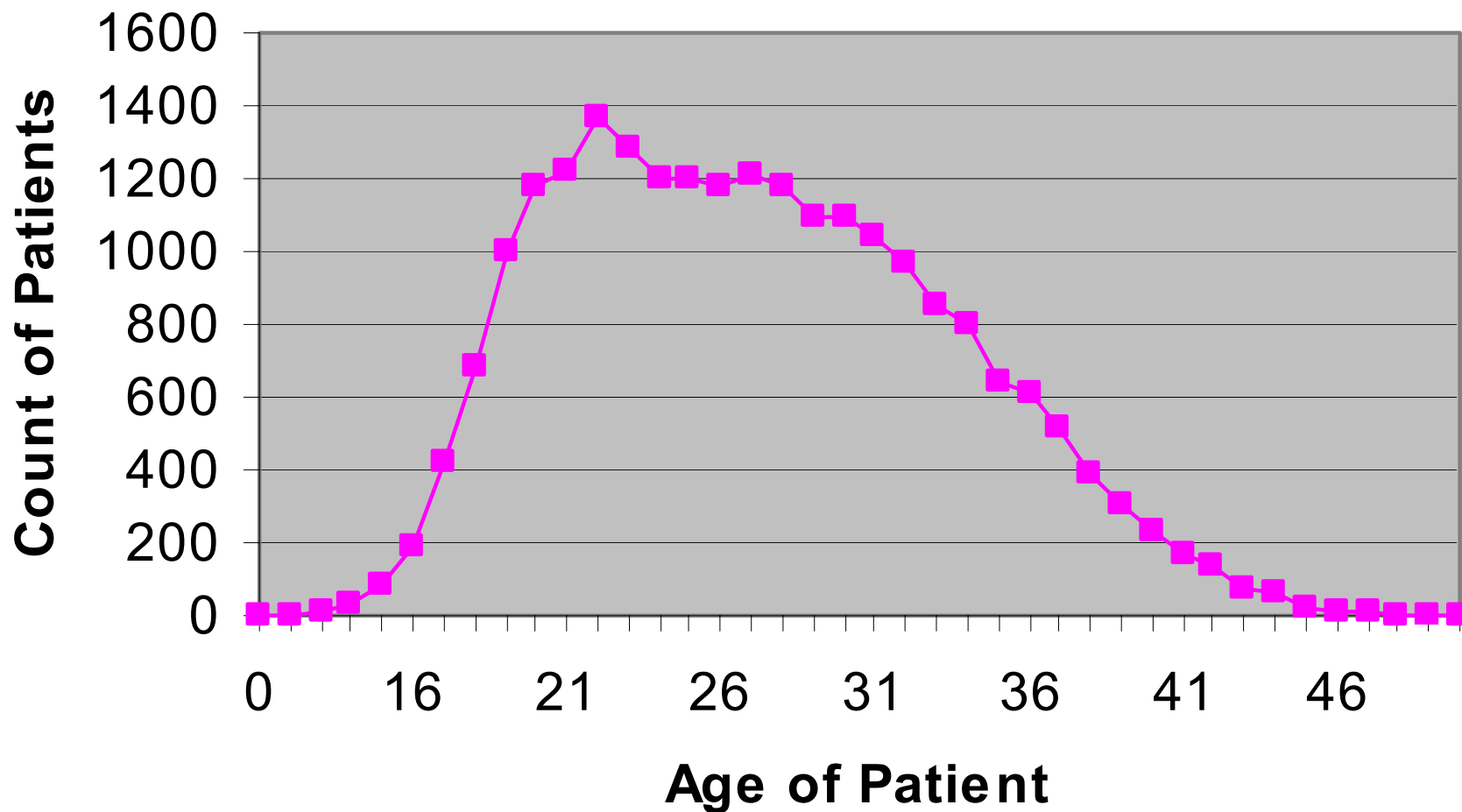


# Observations about Alaskan's “out of state” discharges

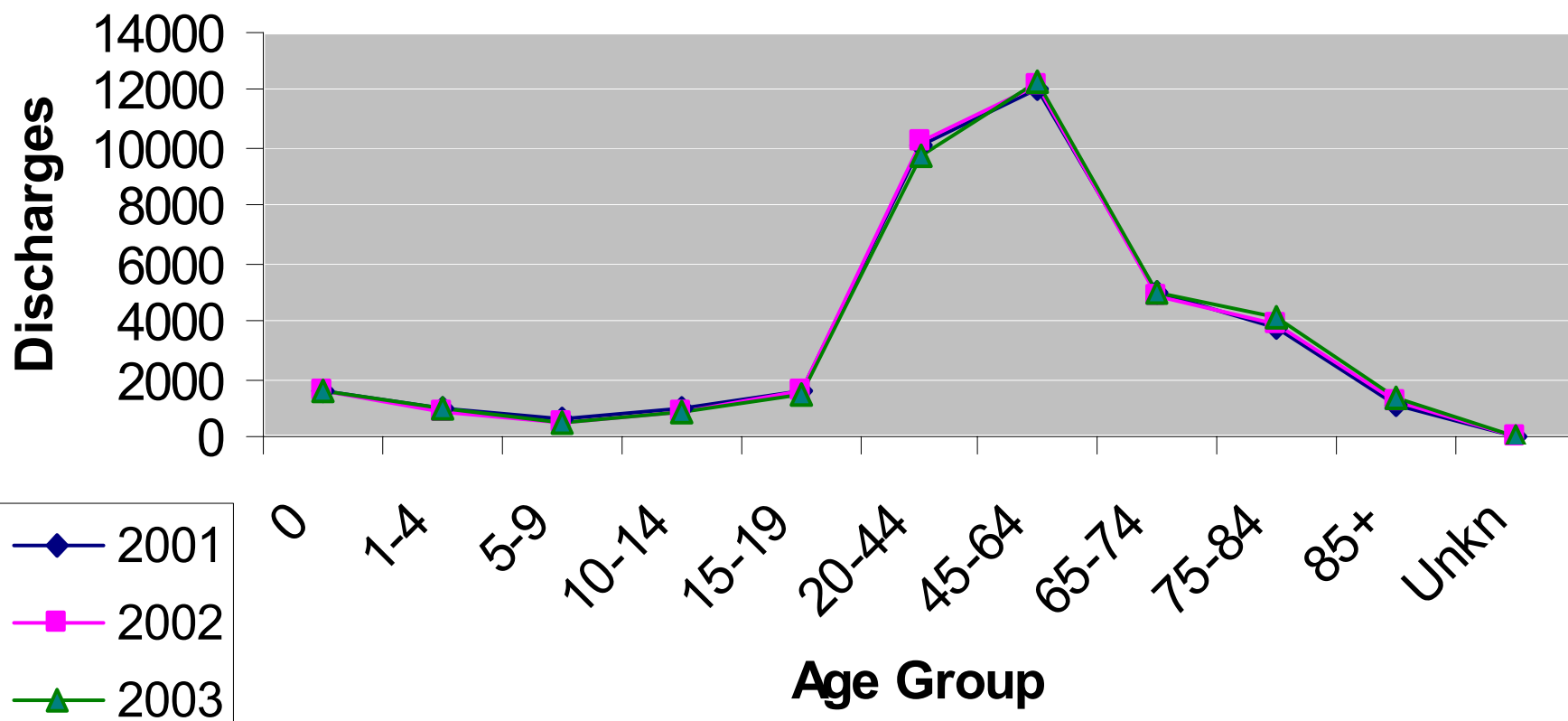
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- Cancer, injury and “symptoms and ill-defined conditions” are diagnostic groups accounting for a larger proportion of discharges in Washington State than in Alaska; heart disease (circulatory system) important both places
- Commercial insurance is primary pay source both in-state and in WA; Medicaid is second most common primary pay source in Alaska but Medicare is second most common for Alaskans in WA
- WA state admissions of Alaskans on average are twice as expensive as in-state admissions (may be due to complexity, length of stay, other reasons)

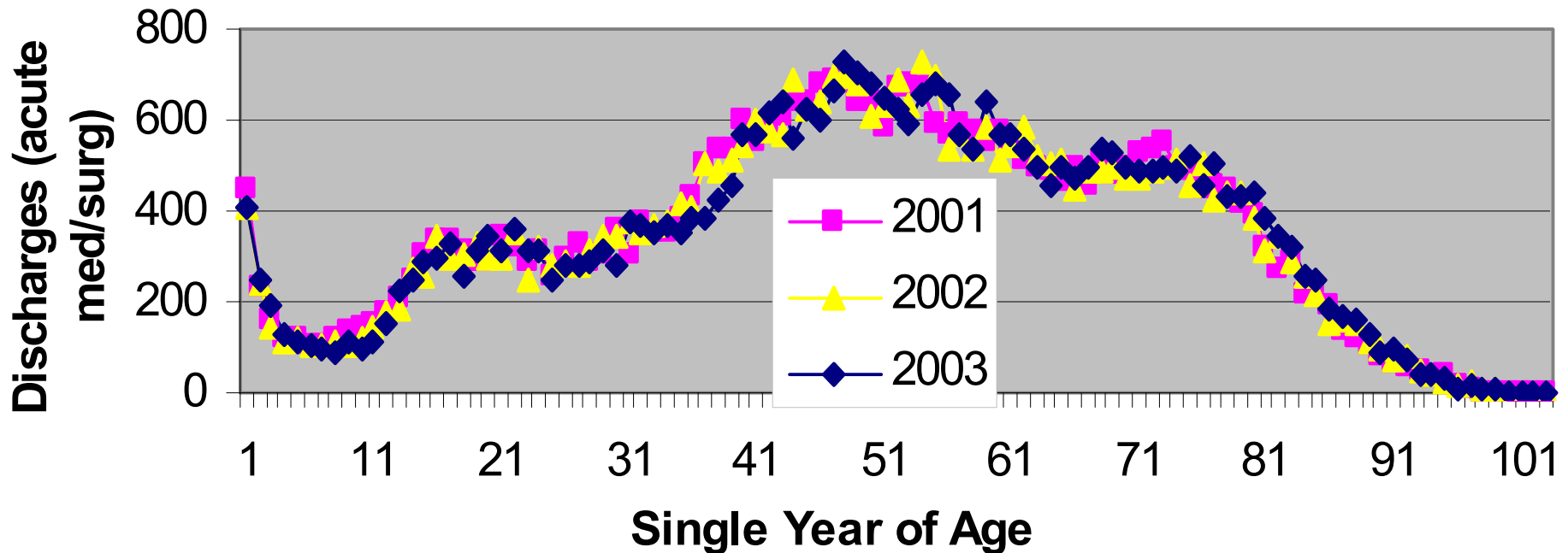
## Age for "Deliveries" 2001-2003



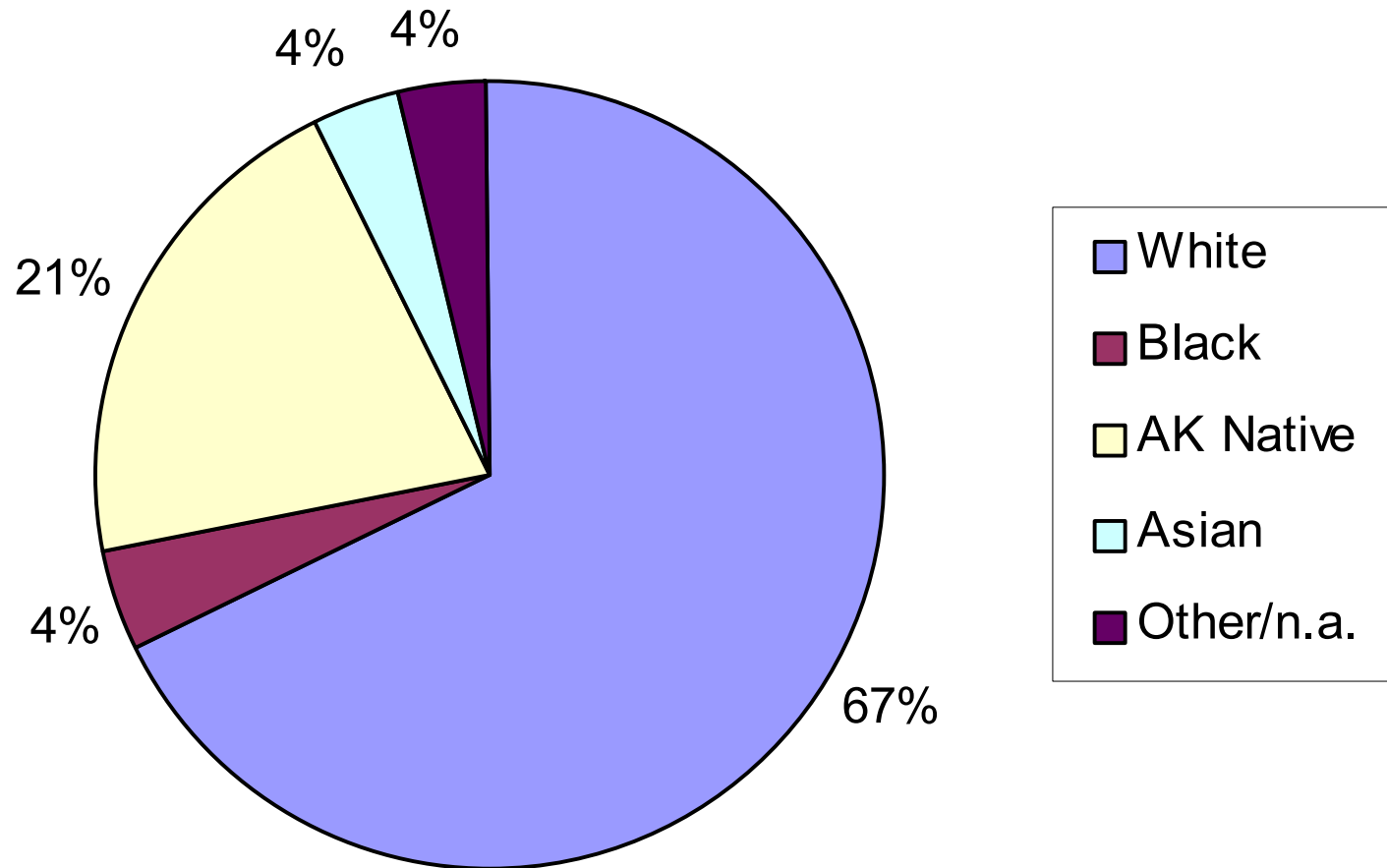
## Age Group of Patients at Discharge by Year, for Diagnoses Not related to birth/delivery



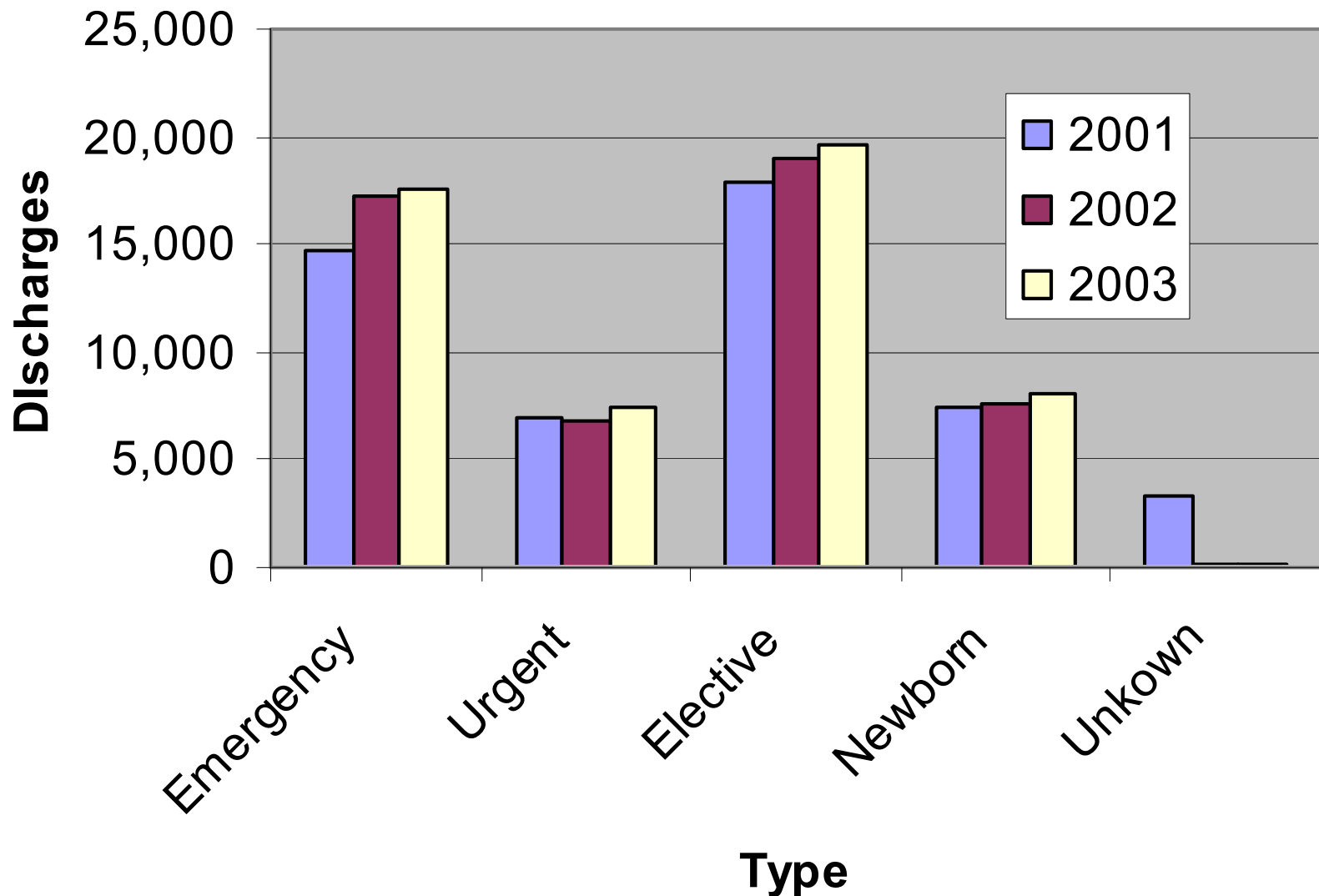
## Age Distribution of Discharges (other than deliveries and infants)



## Alaska Discharges by Race 2003



## Admission Type by Year (Acute Med/Surg only)

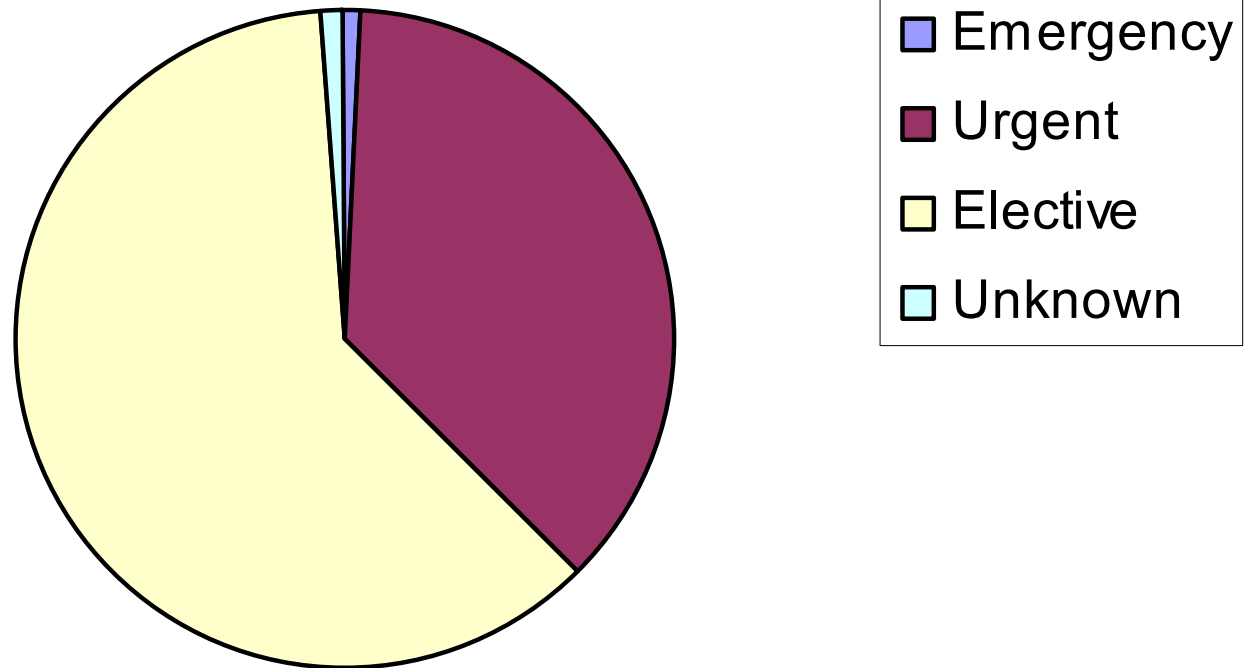





# Admission Type

Type	Acute Med/Surg other than those admitted on birthdate	Admitted on Birth Date
Emergency	50,286	<b>81</b>
Urgent	21,675	<b>225</b>
Elective	58,693	<b>484</b>
"Newborn" on record	<b>324</b>	22,758
Unknown or other	3550	5

## **Deliveries by Admission Type 2001 - 2003, N=22,300**





Borough/Census Area	Admissions	%
<b>Anchorage</b>	<b>71,828</b>	<b>45.16</b>
<b>Fairbanks NSB</b>	<b>17,474</b>	<b>10.99</b>
<b>Mat-Su</b>	<b>16,842</b>	<b>10.59</b>
<b>Kenai-Pen</b>	<b>14,709</b>	<b>9.25</b>
<b>Juneau</b>	<b>7,374</b>	<b>4.64</b>
<b>Other State</b>	<b>4,905</b>	<b>3.08</b>
Bethel	2,930	1.84
Kodiak	2,721	1.71
Valdez-Cordova	2,391	1.5
Yukon-Koyukuk	1,748	1.1
Ketch* (only 2003 for KGH)	1,727	1.09
North Slope B*	1,730	1.09
Nome*	1,611	1.01
Wade Hampton*	1,484	0.93

Sitka*	1,429	0.9
Wrang-Pet*	1,379	0.87
NW Arctic*	1,296	0.81
SE Fairbnks	1,279	0.8
Dillingham*	769	0.48
Pr of W.*	574	0.36
Aleut W.	519	0.33
Skagway-H-A	448	0.28
Denali	390	0.25
Haines	364	0.23
Lake & Pen	361	0.23
Aleut E.*	273	0.17
Bristol B*	233	0.15
Unknown	147	0.09
Yakutat	126	0.08
Total	159,061	100

\*non-participating hospitals in area

## Admissions by Census Area/Borough 2001-2003 for Participating Hospitals



# “Assessment” and “Assurance”

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Two of the Public Health Essential Services

“Safety Net” concept – assuring access to care, monitoring disparities, planning public health interventions to improve health status and health security

Indicators – of system performance, of population health, “unmet needs”



# Public Health Information for Partners and for the Public

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- Looking at how we are doing on the Healthy Alaskans 2010 indicators
- Using HDDS and other data (mortality, BRFSS and YRBS, demographics, reportable disease data, Medicaid data) to describe and analyze “burden” of disease on people and on the economy
- Making data more readily available to all



# Materials Using HDDS to Date

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- "Tobacco in the Great Land"
- "Burden of Cardiovascular Disease in Alaska"
- Fact Sheets on Injury Disparities
- Diabetes Prevention and Control Program - doing in-depth analysis for burden paper
- Asthma Work Group using summary data
- Evaluation projects, Unmet Need analysis

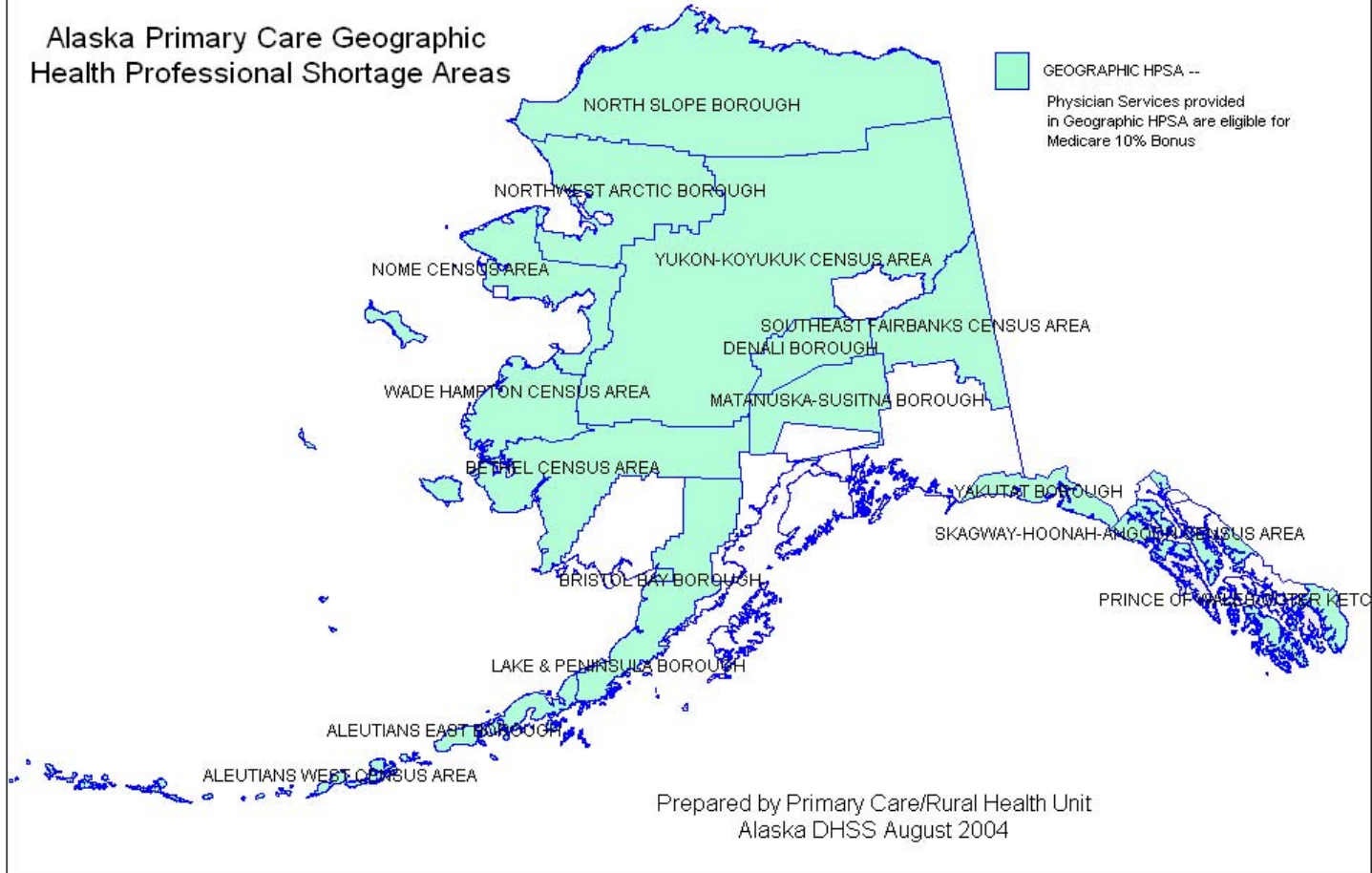


# Medically Underserved Areas

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- Based on infant mortality rate, poverty rate, percent of population 65+, and ratio of primary care providers to population.
- MUA (or special population – such as low income population – MUP) designated or updated within three years is required for application for CHC funding
- MUA must be in place for a clinic in the area to be Medicare-approved as a Rural Health Clinic

## Alaska Primary Care Geographic Health Professional Shortage Areas



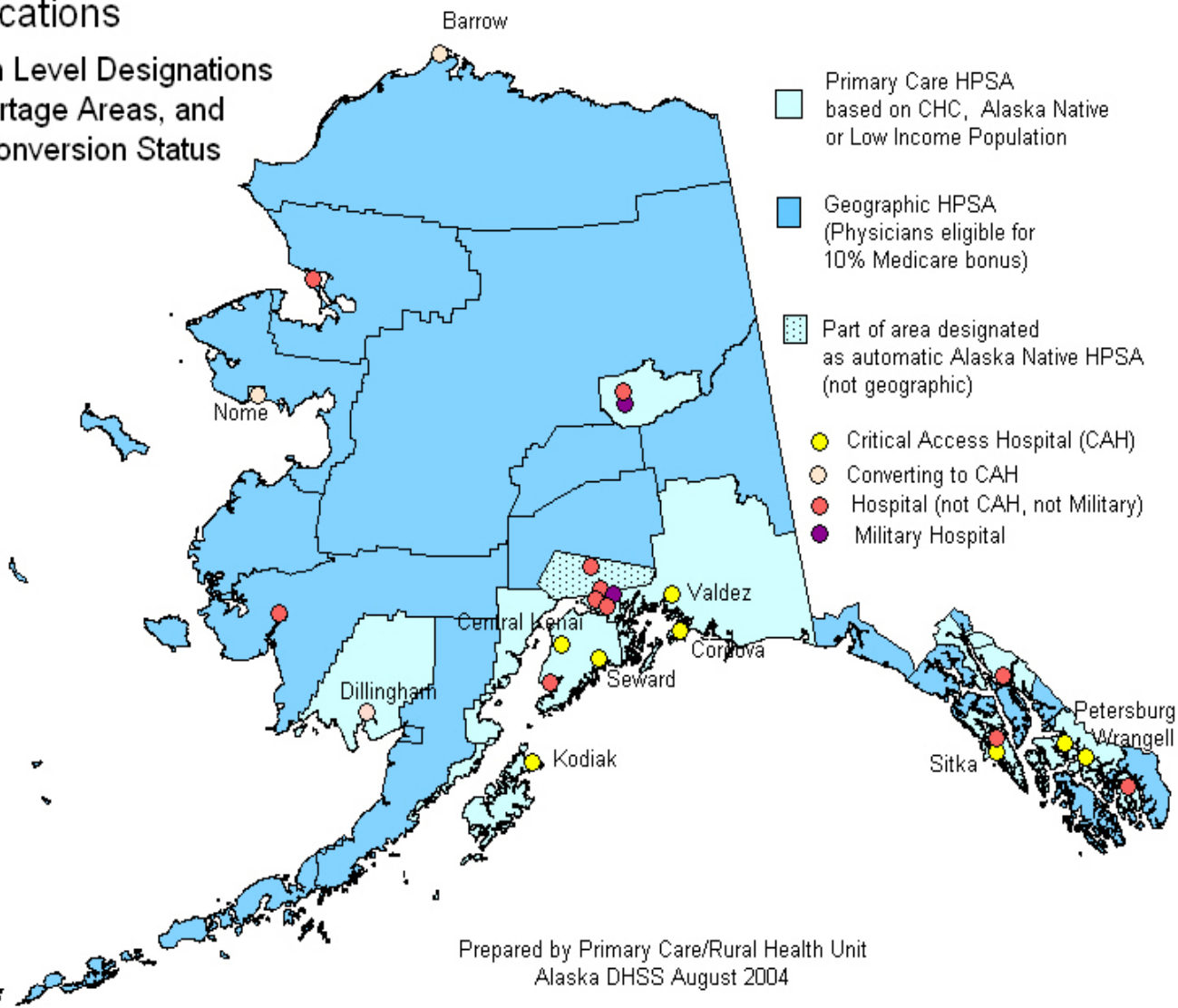
# Health Professional Shortage Areas

# Alaska Hospital Locations

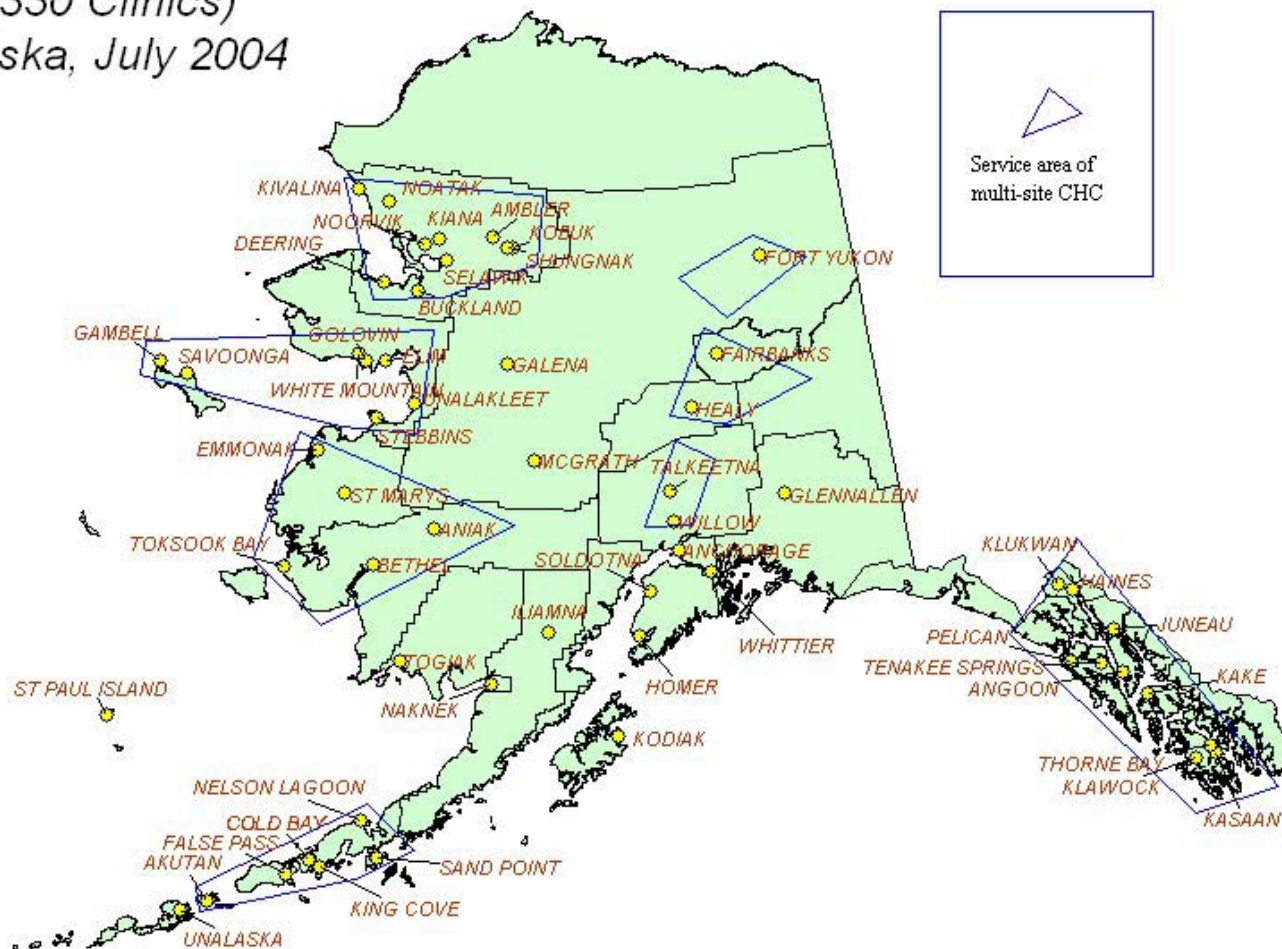
with Census Area and Borough Level Designations  
as Health Professional Shortage Areas, and  
Critical Access Hospital Conversion Status

## 24 Hospitals:

- 8 CAHs
- 3 Converting to CAH
- 1 Eligible
- 2 Military
- 10 Others have more than 25 beds



Communities with Community Health Centers  
(330 Clinics)  
Alaska, July 2004



Source: State of Alaska, DHSS, Primary Care & Rural Health Unit, 07/19/2004



# Ways to display HDDS data

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- Maps
- Graphs
- Tables
- Comparisons between reasons for hospitalization, causes of death
- Where to publish? Web and hard copy?
  - Disease “burden papers”
  - Annual summary report
  - Fact sheets
  - Online query system -- with limits -- statewide data, HIPAA compliance rules to preclude very small numbers



# Ways to analyze the data

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- Patient origin studies (can use regions or census areas and boroughs)
- Counts
- Rates
- Comparisons with national data
- Comparisons of small-medium-large hospitals
- AK vs. WA discharges
- Alaska residents vs. non-residents



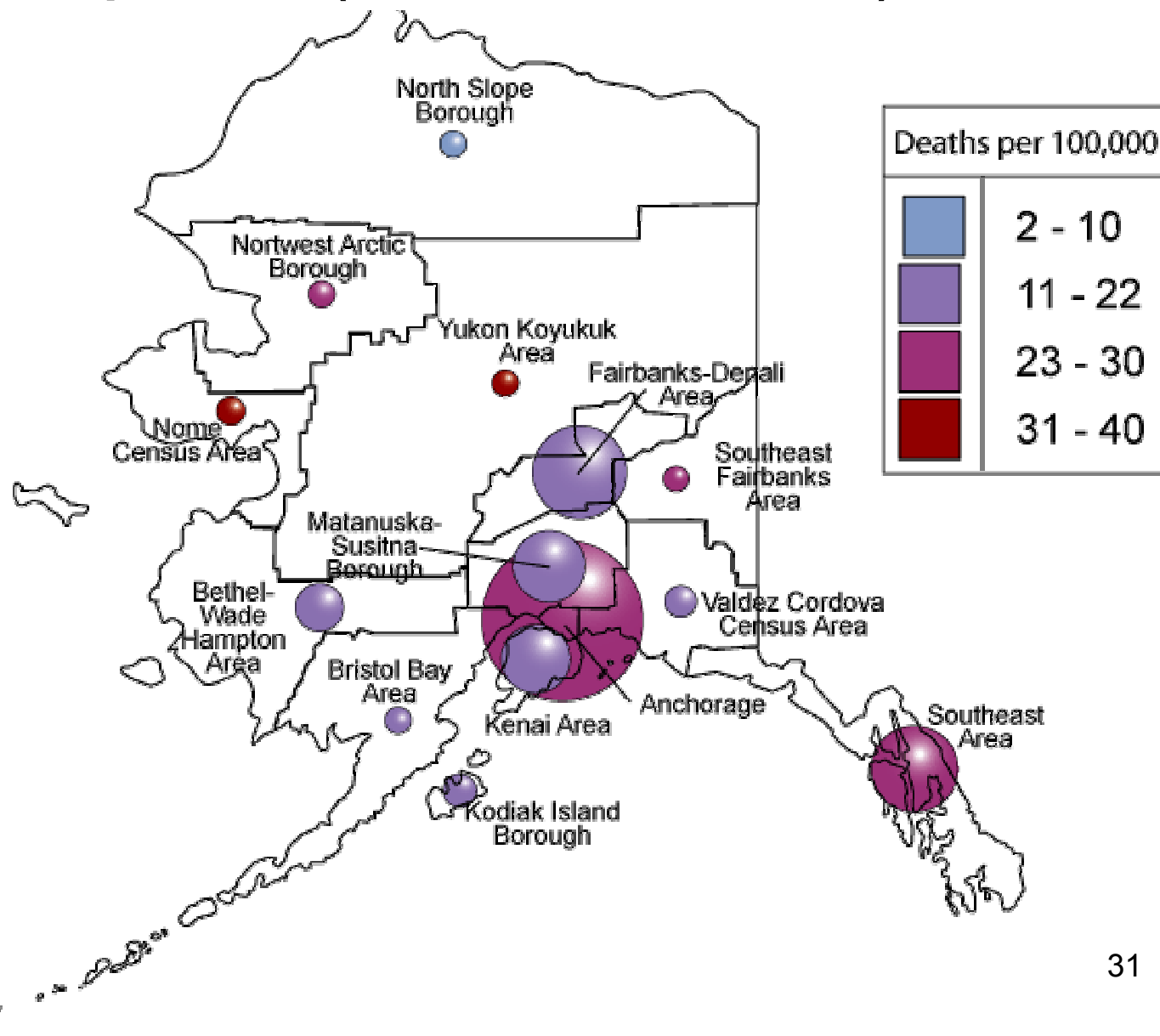
# Mapping Examples from other work...next two slides

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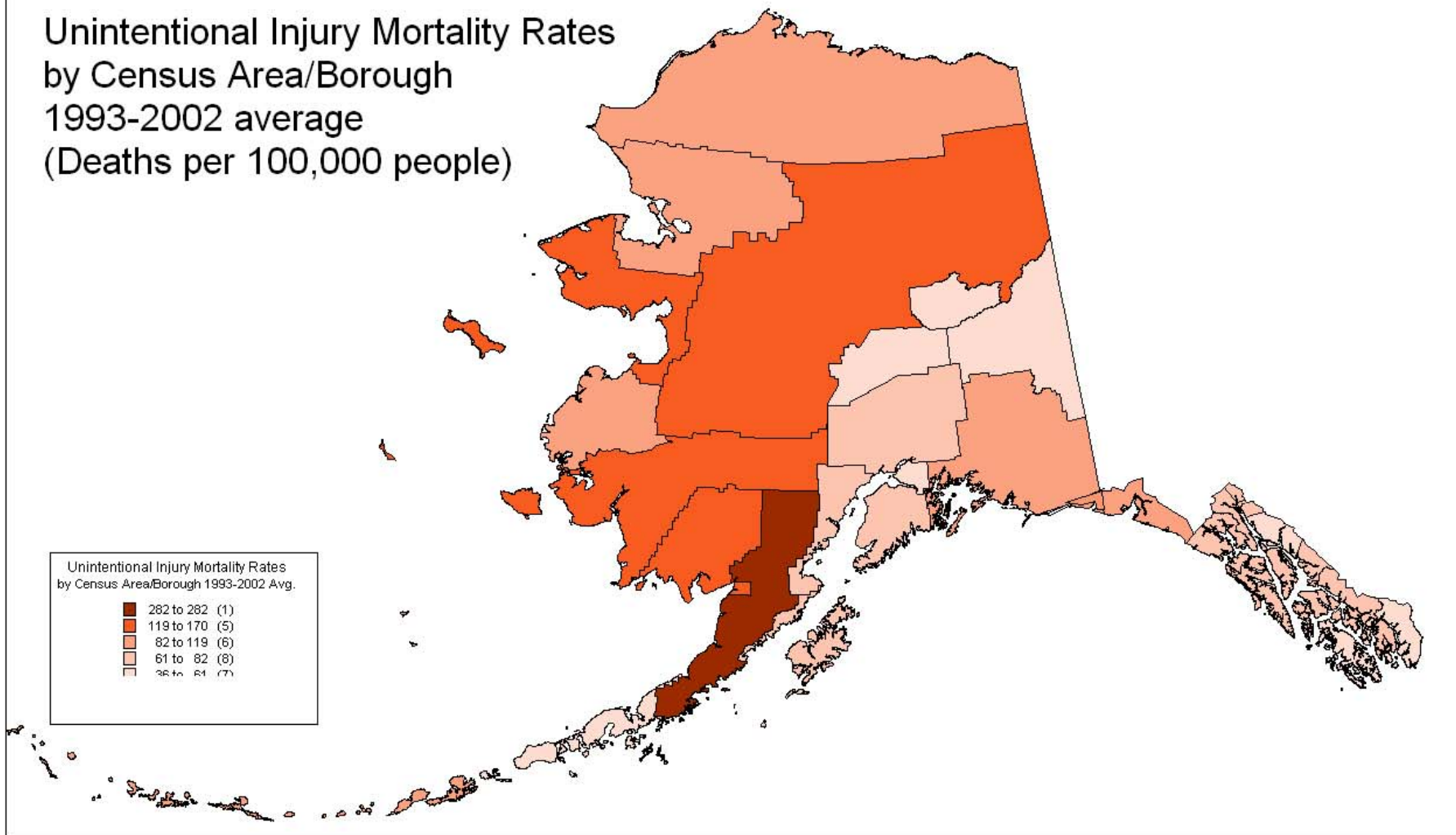
- Mortality rates and numbers indicated by circles related to census area/borough
- Mortality rates by census area/borough using color ranges for illustration

(data display methods can be used for hospitalization rates, overall or by cause; can also be used to contrast charges or length of stay variation related to remote residence)

# Crude Death Rates for Stroke, Circles Proportional to Population (Alaskans, 1990-1999)



Unintentional Injury Mortality Rates  
by Census Area/Borough  
1993-2002 average  
(Deaths per 100,000 people)



# DHSS/Public Health Interests –



## Health Status Assessment and Planning Data

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- Data from Small Tribal Hospitals and from Bassett Army Hospital
- Emergency Department Data
- Outpatient Department Data
- Collaboration with hospitals on interpretation of the data/findings
- More trend analysis and cost/benefit assessment of potential impacts of preventive initiatives



# Interests of Hospitals?

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Data for Continuous Quality Improvement

- ability to compare hospitals of similar size to national or state norms
- can the HDDS provide data on GPRA or other performance measures?

Hospitals can get reports from HIDI, Inc. or in some cases from DHSS for own data

Other interests?



# For more information and suggestions...

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